

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A solid oxide fuel cell comprising:

a plurality of electric power-generating elements, ~~stacked in a stack direction and each~~ including a solid oxide electrolyte and a porous electrode section on the solid oxide electrolyte to which gases are supplied;

a plurality of first current collector layers, ~~connected to~~ for the electrode sections, respectively, ~~which are porous;~~

~~at least one separator~~ a plurality of separators; ~~disposed between at least one pair of adjacent ones among the plurality of electric power-generating elements to electrically connect the at least one pair of adjacent ones to one another such that the plurality of electric power-generating elements are electrically connected in the stack direction;~~

wherein the plurality of electric power-generating elements, the plurality of first current collector layers and the plurality of separators are stacked in a stack direction such that each of the plurality of separators is disposed between and electrically interconnects an adjacent two of the plurality of electric power-generating elements, and each of the plurality of current collector layers is operatively disposed between one of the plurality of separators and the electrode section of an adjacent one of the plurality of electric power-generating elements,

~~a gas supply flow channel~~ a plurality of gas supply flow channels, each defined between ~~the at least one separator~~ of the plurality of separators and ~~an~~ associated one of the plurality of first current collector layers;

a plurality of gas supply branch flow passages branched off from one of the plurality of gas supply flow channels, ~~and reaching the plurality of gas supply branch flow passages terminating at a plurality of blowout ports, respectively, formed within a surface of the associated one of the plurality of first current collector layers which is disposed adjacent the electrode section of an~~ an ~~[[the]]~~ associated one of the plurality of electric power-generating elements; and

a plurality of gas exhaust flow channels ~~permitting a remnant of gas, provided to the associated one of the plurality of electric power generating elements via the plurality of gas supply branch flow passages, to be exhausted through the associated one of the first current collector layers~~ formed inwardly from the surface of the associated one of the plurality of first current collector layers, wherein the plurality of gas exhaust flow channels are configured to receive consumed gas that is pushed by a fresh supply of gas out of the blowout ports and to dissipate the consumed gas over an entire area of the surface of the associated one of the plurality of first current collector layers.

2. (Original) The solid oxide fuel cell according to claim 1, wherein the electrode section includes a porous oxidizer electrode formed on one surface of the solid oxide electrolyte to be supplied with oxidizer gas and a porous fuel electrode formed on the other surface of the solid oxide electrolyte to be supplied with fuel gas.

3. (Original) The solid oxide fuel cell according to claim 2, wherein the plurality of first current collector layers are disposed adjacent to the oxidizer electrode and the fuel electrode, respectively.

4. (Currently Amended) The solid oxide fuel cell according to claim 1, wherein the plurality of gas supply branch flow passages are branched off from a [[the]] gas flow channel and configured to reach the electrode section of the associated one of the plurality of electric power-generating elements via the associated one of the plurality of first current collector layers.

5. (Original) The solid oxide fuel cell according to claim 1, wherein the plurality of first current collector layers include porous electric conductors.

6. (Currently Amended) The solid oxide fuel cell according to claim 1, wherein the gas exhaust flow channels ~~are formed on the plurality of first current collector layers, respectively, and~~ have recesses, subjected to pore stop processing, which reach the electrode section of the associated one of the plurality of electric power-generating ~~section~~ elements.

7. (Original) The solid oxide fuel cell according to claim 1, wherein second current collector layers, each composed of a porous electric conductor, are placed between the plurality of electric power-generating elements and the plurality of first current collector layers, respectively.

8. (Currently Amended) The solid oxide fuel cell according to claim 7, wherein the remnant of gas provided to the associated one of the plurality of electric power-generating elements via the plurality of gas supply branch flow passages is exhausted via an associated one of the second current collector layers.

9. (Currently Amended) The solid oxide fuel cell according to claim 1, wherein ~~the number~~ of the plurality of gas exhaust flow channels are larger in an outer peripheral area than that of the gas exhaust flow channels in a central area of the associated one of the plurality of electric power-generating elements.

10. (Original) The solid oxide fuel cell according to claim 1, wherein cross sectional areas of the plurality of gas exhaust flow channels are larger in an outer peripheral area than those of the gas exhaust flow channels in a central area of the associated one of the plurality of electric power-generating elements.

11. (Currently Amended) The solid oxide fuel cell according to claim 1, wherein the plurality of first current collector layers include a frame section~~[[,]]~~ formed with a plurality of openings, and porous electric current conductors correspondingly placed adjacent to the plurality of openings, wherein ~~[[and]]~~ the gas supply flow channels ~~channel~~ are branched off from ~~[[at]]~~ the plurality of openings.

12. (Original) The solid oxide fuel cell according to claim 11, wherein the frame section is made of metal and a size of the plurality of openings is greater in an outer peripheral area than that of the openings in a central area of the associated one of the plurality of electric power-generating elements.

13. (Currently amended) The solid oxide fuel cell according to claim 11, wherein a width in which the frame section overlaps the porous electric current conductor is greater than a thickness of the porous electric current conductor in the stack direction.

14. (Original) The solid oxide fuel cell according to claim 1, wherein third current collector layers, each composed of a porous electric conductor, are placed in the plurality of gas exhaust flow channels, respectively, and the third current collector layers have a porosity greater than that of the plurality of first current collector layers.

15. (Currently amended) The solid oxide fuel cell according to claim 7, wherein third current collector layers, each composed of a porous electric conductor, are placed in the plurality of gas exhaust flow channels, respectively, and the third current collector layers have a porosity greater than that of the second current collector ~~layer~~ layers.

16. (Original) The solid oxide fuel cell according to claim 2, wherein the plurality of first current collector layers each facing the fuel electrode carry fuel reforming catalyst.

17. (New) A solid oxide fuel cell comprising:

a plurality of electric power-generating elements, each including a solid oxide electrolyte, a porous oxidizer electrode on one surface of the solid oxide electrolyte, and a porous fuel electrode on the other surface of the solid oxide electrolyte;

current collector layers for the oxidizer and fuel electrodes, respectively, of one of the plurality of electric power-generating elements;

a separator disposed between adjacent current collector layers of an adjacent two of the plurality of electric power-generating elements that electrically interconnects the adjacent two of the plurality of electric power-generating elements;

wherein the separator includes an oxidant gas supply flow channel in communication with a plurality of oxidant gas blowout ports formed within a surface of an associated one of the current collector layers which is disposed adjacent the oxidizer electrode of an associated one of the adjacent two of the plurality of electric power-generating elements;

a plurality of oxidant gas exhaust flow channels formed inwardly from a surface of the associated one of the current collector layers, wherein the plurality of gas exhaust flow

channels are configured to receive consumed gas that is pushed by a fresh supply of oxidant gas out of the oxidant gas blowout ports and to dissipate the consumed gas over an entire area of the surface of the associated one of the current collector layers;

wherein the separator has a fuel gas supply flow channel in communication with the plurality of fuel gas blowout ports formed within the surface of the associated one of the current collector layers which is disposed adjacent the fuel electrode of the other one of the adjacent two of the plurality of electric power-generating elements;

a plurality of fuel exhaust flow channels formed inwardly from a surface of the associated other one of the current collector layers, wherein the plurality of gas exhaust flow channels is configured to receive consumed gas that is pushed by a fresh supply of fuel gas out of the fuel gas blowout ports and to dissipate the consumed gas over an entire area of the surface of the associated other one of the current collector layers.